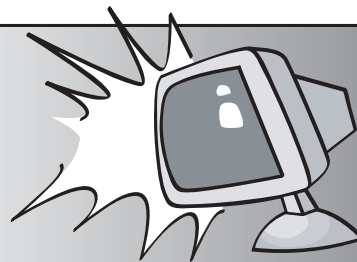




Tour of the Basics Web Quest



Log on to: <http://gslc.genetics.utah.edu/units/basics/tour/>. Explore this activity to find the answers to the questions below.

1. *What is DNA?*
2. *What does "DNA" stand for?*
3. *What is the four-letter DNA alphabet and what are the special rules by which the alphabet pieces bond together?*
4. *What is a gene?*
5. *What are genes made of?*
6. *How many genes do humans have?*
7. *For what molecule do genes contain the instructions for building?*
8. *What is a chromosome?*
9. *How many chromosomes does a human cell hold?*
10. *How are the human sex chromosomes labeled?*
11. *How many different kinds of proteins does one cell contain?*

12. *Why do scientists use computer programs to model protein structure and function?*
13. *What provides the “blueprint” for making a protein?*
14. *What is heredity?*
15. *Why aren’t children identical to either one of their parents?*
16. *In humans, how many chromosomes does each parent pass on to their offspring?*
17. *Does the second baby in the What is Heredity? animation inherit the exact same chromosomes as the first? Do both babies have a complete set?*
18. *What is a trait?*
19. *List the types of traits that exist.*
20. *Give an example of how an environmental factor can influence a trait.*
21. *Briefly explain how the Hitchhiker’s Thumb trait is determined using the following words: allele, dominant, recessive, homozygous, heterozygous. You may draw pictures if you wish.*